DOCUMENT RESUME

ED 066 713 CS 000 124

AUTHOR	Weintraub, Samuel, Comp.
TITLE	Auditory Perception and Deafness. Reading Research Profiles, A Bibliography Series of ERIC/CRIER+IRA.
INSTITUTION	Indiana Univ., Bloomington. ERIC Clearinghouse on Reading.; International Reading Association, Newark, Del.
SPONS AGENCY	Office of Education (DHEW), Washington, D.C.
PUB DATE	72
NOTE	51p.
AVAILABLE FROM	International Reading Association, Six Tyre Avenue, Newark, Delaware 19711 ($1.50 non-member, $1.00 member)
EDRS PRICE	MF-$0.65 HC-$3.29
DESCRIPTORS	*Audition (Physiology); *Auditory Perception; Bibliographies; Deaf Children; Listening; *Reading Achievement

ABSTRACT

The items in this annotated bibliography include studies, journal literature, USOE-sponsored research, and the conference proceedings of the International Reading Association, covering the years 1950 to 1969. Part I is devoted to "Audition" which encompasses reports based on all aspects of listening and its relationship to reading, and "Auditory Abilities" which lists articles on memory, discrimination, and blending ability. Part II covers all aspects of auditory acuity as it is related to academic performance in reading--particularly reading problems encountered in deaf children. (Appended is a list of ERIC/CRIER+IRA Reading Research Profiles Bibliographies.) (HS)

Auditory Perception and Deafness

Samuel Weintraub

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION
THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY

ED 066713

CS 000 124

eric ira
Eric/Crier—International Reading Association
Reading Research Profiles

ED 066713

READING RESEARCH PROFILES
A Bibliography Series
of ERIC/CRIER+IRA

Auditory Perception and Deafness

Compiled by

SAMUEL WEINTRAUB

Indiana University

1972

The Reading Research Profiles series of bibliographies is structured on the ERIC/CRIER classification system and is printed in cooperation with the International Reading Association, a professional organization for individuals and groups concerned with the improvement of reading at all educational levels. One of the 19 clearinghouses in the ERIC system, the Clearinghouse on Retrieval of Information and Evaluation of Reading collects, organizes, analyzes, and disseminates significant research, information, and materials on reading to teachers, administrators, researchers, and the public. ERIC/CRIER was established by the Educational Resources Information Center of the USOE.

The International Reading Association attempts, through its publications, to provide a forum for a wide spectrum of opinion on reading. This policy permits divergent viewpoints without assuming the endorsement of the Association.

This bibliography was prepared pursuant to a contract with the Office of Education, U.S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their judgment in professional and technical matters. Points of view or opinions do not, therefore, necessarily represent official Office of Education position or policy.

Contents

Information on the ERIC System 4
Introduction 5
Part I – Auditory Perception 9
Section 1: Audition 9
Section 2: Auditory Abilities 19
Part II – Deafness 45
Appendix 51
1. Instructions for ordering microfiche and hard copy document reproductions from the ERIC Document Reproduction Service
2. Instructions for ordering microfilm and xerography document reproductions from University Microfilms

Information on the ERIC System

ERIC and ERIC/CRIER

ERIC is a decentralized, national information system which acquires, abstracts, indexes, stores, retrieves, analyzes, and disseminates significant and timely educational information. ERIC's full name is the Educational Resources Information Center, and it is funded through the Bureau of Research, USOE. ERIC was founded to reduce limitations in the identification, transfer, and use of educational information. In short, the major goal of ERIC is to enable school administrators, teachers, researchers, information specialists, professional organizations, graduate and undergraduate students, and the general public to keep up-to-date on research and research-related knowledge in education. ERIC accomplishes this through strengthening existing educational information services and providing additional ones.

Each of the clearinghouses in the ERIC system operates within a specific area of education defined in its "scope" note. ERIC/CRIER's domain of operation includes:

> . . . research reports, materials and information related to all aspects of reading behavior with emphasis on the physiology, psychology, sociology, and teaching of reading. Included are reports on the development and evaluation of instructional materials, curricula, tests and measurements, preparation of reading teachers and specialists, and methodology at all levels; the role of libraries and other agencies in fostering and guiding reading; and diagnostic and remedial services in school and clinic settings.

Introduction

The relationship between various auditory abilities and reading performance has long been a topic of interest to reading educators and researchers. The number of entries in this bibliography demonstrates the extensiveness as well as the many facets of that interest. Researchers, administrators, reading specialists, and classroom teachers as well as individuals in related areas such as speech and hearing will find information of use in this bibliography.

For purposes of aiding the user of this bibliography to find information more easily, it has been divided into two major categories or parts, Auditory Perception and Deafness. The former category is further sectioned into Audition and Auditory Abilities.

Although the topics might appear to be discrete, they are not necessarily so. Some items could logically be catalogued into either of the major sections. Therefore, the user might be advised to at least skim all parts of this annotated bibliography for the most comprehensive search of items dealing with listening, auditory deficits, or other aspects of auditory perception.

When reading either a full research study cited in this bibliography or the abstract based on it, the user would be wise to consider carefully the measurement problems involved. The validity of any study depends to a large extent on the instruments used to asses whatever skills are being measured. In the case of the research cited here, it would involve listening tasks, various auditory perception tasks, and reading tasks. In a number of instances, the measures used are of questionable validity. The conclusions drawn from studies using faulty instruments are therefore based on faulty premises. In the case of the research cited then, it becomes the user's responsibility to investigate the appropriateness of the instruments used as well as the design of the study itself before making any applications of the research, practical or theoretical.

Citations in *Auditory Perception and Deafness* are arranged alphabetically according to the author's last name within the two sections of Part I and within Part II. The studies included cover the years 1950 to 1969 and were taken from ERIC/CRIER's data base and from other sources. The data base is composed of materials selected from published journal literature, dissertations, USOE sponsored research, and the conference proceedings of the International Reading Association.

ERIC/CRIER Basic References

Following is a description of the Basic References that compose this data base. Each of these reference sources can be ordered by ED number in microfiche and hard copy reproductions at listed prices from the ERIC Document Reproduction Service (EDRS), Post Office Drawer O, Bethesda, Maryland 20014. This information follows the title of each reference. (See Appendix for complete EDRS ordering information.) Information of the availability of the documents within each reference is included in the descriptive paragraph.

* *Published Research Literature in Reading, 1900-1949*
(ED 013 970, microfiche $0.65, hard copy $16.45 from EDRS)

* *Published Research Literature in Reading, 1950-1963*
(ED 012 834, microfiche $0.65, hard copy $13.16 from EDRS)

* *Published Research Literature in Reading, 1964-1966*
(ED 013 969, microfiche $0.65, hard copy $6.58 from EDRS)

These references present citations and annotations of published research literature taken from the annual Summary of Investigations Related to Reading. Complete bibliographic data for all entries are given, and the entries are arranged alphabetically by author in yearly segments. The bibliographies cover the complete reading spectrum from preschool to college and adult years and present research on all aspects of reading, including physiology, psychology, sociology, and the teaching of reading. The articles in these references have appeared in the published journal literature and are available in libraries which have good journal collections.

Bibliographies published as part of the *Reading Research Profiles* include material taken from the annual summaries of 1900 to 1969. New articles are incorporated each year as the annual Summary is completed.

* *USOE Sponsored Research on Reading*
(ED 016 603, microfiche $0.65, hard copy $6.58 from EDRS)
Covers 1956 through 1965.

* *USOE Sponsored Research on Reading, Supplement 1*
(ED 031 606, microfiche $0.65, hard copy $3.29 from EDRS)
Covers 1966 through June 1969.

These references provide a comprehensive review of USOE projects on reading and closely related topics funded by the Bureau of Research since its inception in 1956. Each entry includes citation data, index terms, and a descriptive abstract of the contents of the documents. (Supplement 1 uses index terms only.) Individual documents are available from EDRS; prices for ordering hard copy and microfiche given in these documents and all Basic Reference documents listed here can be

updated to the new price schedule by using the table given in the appendix of this bibliography.

* *Recent Doctoral Dissertation Research in Reading*
(ED 012 693, microfiche $0.65, hard copy $9.87 from EDRS)
Covers 1960 to 1965.

* *Recent Doctoral Dissertation Research in Reading, Supplement 1*
(ED 028 055, microfiche $0.65, hard copy $6.58 from EDRS)
Covers 1966 to 1968.

* *Recent Doctoral Dissertation Research in Reading, Supplement 2*
(ED 035 793, microfiche $0.65, hard copy $6.58 from EDRS)
Covers July 1968 through 1969.

These bibliographies list dissertations completed in colleges and universities in the areas of preschool, elementary, secondary, college, and adult reading. Relevant issues of *Dissertation Abstracts* were reviewed, and dissertations on reading were selected. Information on the procedures, design, and conclusions of each investigation is given in the abstract. Each entry includes complete bibliographic data and is listed alphabetically by author.

Copies of the documents in these references can be ordered from University Microfilms, Ann Arbor, Michigan, in positive microfilm or hardbound xerographic form. (See Appendix for complete ordering information.)

* *International Reading Association Conference Proceedings Reports on Elementary Reading*
(ED 013 197, microfiche $0.65, hard copy $39.48 from EDRS)

This basic reference lists the important papers published in the yearly conference proceedings of the International Reading Association in elementary reading from 1960 to 1966. The complete text of each paper is provided, and the 345 papers are presented within 16 subject categories. The documents in this reference can be ordered only as a complete unit.

* *International Reading Association Conference Proceedings Reports on Secondary Reading*
(ED 013 185, microfiche $0.65, hard copy $23.03 from EDRS)

This companion volume to the preceding reference lists the important papers on junior and senior high school reading published in the yearly conference proceedings of the International Reading Association from 1960 to 1966. The complete text of each paper is provided, and the 180 papers are presented within 12 subject categories. The documents in this reference can be ordered only as a complete unit.

* *Indexes to ERIC/CRIER Basic References*
(ED 030 004, microfiche $0.65, hard copy $16.45 from EDRS)
Covers 1950 to June 1967.

This reference lists indexes to ERIC/CRIER Basic References by subject, grade level, and author. The broad subjects are defined with descriptive phrases chosen from the documents.

Part I
Auditory Perception

This part of the bibliography has been sectioned into Audition and Auditory Abilities. Perhaps the sharpest distinction to be made between the two sub-sections is that one, Audition, encompasses primarily reports based on all aspects of listening and its relationship to reading, while the other sub-section, Auditory Abilities, lists articles that include other phases of auditory perception, such as memory, discrimination, and blending ability. Distinctions between the two sub-sections are not always clear-cut; some articles have been arbitrarily placed in one category when they might well have fit into both.

Section 1: Audition

This sub-category is a repository for a number of research reports, statements, annotated bibliographies, and summaries of research dealing with various aspects of listening as it relates to reading. One of the most commonly found types of articles in this section is that dealing with the effect of instruction in listening skills on reading performance. Other foci include the use of listening tests as means of identifying academic potential, time-compressed speech, and the development of measures to assess achievement in both listening and reading.

Austin, Martha Lou. "Improvement of Reading Through Instruction in Listening," *Vistas in Reading,* J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 11, Part 1 (1966) 32-35.

Discusses the possibilities for relating the common elements of listening and reading for instructional purposes.

Barkline, Kenneth Stewart. *Auditory Distraction and Reading Achievement.* 161 p. (Ph.D., University of Minnesota, 1968) *Dissertation Abstracts,* 29, Number 12, 4315-A. Order No. 69-6792, microfilm $3.00, xerography $7.60 from University Microfilms.

Studies the effect of auditory distractibility on reading comprehension on first-grade boys.

Beidler, Anne Elizabeth. *The Effects of the Peabody Language Development Kits on the Intelligence, Reading, Listening, and Writing of Disadvantaged Children in the Primary Grades.* 111 p. (Ed.D., Lehigh University, 1968) *Dissertation Abstracts,* 29, No. 11, 3760-A. Order No. 69-7322, microfilm $3.00, xerography $5.60 from University Microfilms.

Analyzes the effectiveness of the Peabody Language Development Kits to

determine whether disadvantaged children using them would perform better on intelligence, reading, listening, and writing tests than would students not using them by using as subjects 270 children from kindergarten, first grade, and second grade in two Bethlehem, Pennsylvania schools, located in disadvantaged areas.

Belgum, Evelyn Hattie. *The Effect of Silent Reading and Two Modes of Listening on Children's Comprehension Achievement at Grades Two, Four, and Six.* 121 p. (Ed.D., University of California, Berkeley, 1967) *Dissertation Abstracts*, 29, No. 1, 178-A. Order No. 68-10,258, microfilm $3.00, xerography $6.00 from University Microfilms.

Studies the comparative effectiveness of silent reading, informal telling, and oral reading in the presentation of information and investigates the relationship between listening and sex, mental age, and chronological age, using as subjects 96 second graders, 100 fourth graders, and 91 sixth graders.

Berg, Paul. "Reading in Relation to Listening," *Evaluating College Reading Programs*, Oscar S. Causey and Albert J. Kingston, Eds. The Southwest Reading Conference for Colleges and Universities Yearbook, 4 (1955) 52-60.

Presents the answers to five questions justified by the results of research relating to reading and listening.

Bixler, Ray H., *et al. Comprehension of Rapid Speech by the Blind, Part I.* 46 p. (CRP-1005-Pt. 1, Louisville University, Kentucky, 1961) ED 003 003, microfiche $0.65, hard copy $3.29 from EDRS.

Compares reading comprehension of blind children reading braille selections with comprehension of blind children who heard the same selections at varied rates.

Bonner, Myrtle Clara Studdard. *A Critical Analysis of the Relationship of Reading Ability to Listening Ability.* 236 p. (Ed.D., Auburn University, 1960) *Dissertation Abstracts*, 21, No. 8, 2167-68. L.C. Card No. Mic. 60-5336, microfilm $3.05, xerography $10.80 from University Microfilms.

Reports on the administering of the Sequential Tests of Educational Progress (STEP) Listening Test, Pintner General Ability Test--Non-Language Series, Stanford Achievement Test Elementary and Intermediate, and the Sonotone Hearing Tests to 282 pupils in grades 4,5, and 6 and the statistical analysis of resulting data to find correlations, if any, between listening and reading comprehension, total reading, and intelligence.

Breiter, Joan Catherine. *A Comparison of Reading and Listening as Techniques of Instruction in the Social Studies at the Sixth Grade Level.* 284 p (Ed.D., Colorado

State College, 1968) *Dissertation Abstracts*, 29, No. 8, 2429-A. Order No. 69-2828, microfilm $3.65, xerography $12.85 from University Microfilms.

Reports an investigation and comparison that were made of the effects of social studies instruction through the use of reading techniques and of listening techniques on the comprehension of sixth-grade pupils.

Brooks, L. R. "The Suppression of Visualization by Reading," *Quarterly Journal of Experimental Psychology*, 19 (November 1967) 289-99.

Describes four experiments designed to determine if there is a conflict between reading verbal messages versus listening to them and imagining spatial relations mentioned in them by individually subjecting eight first-year undergraduates in psychology to experimental conditions in two separate sessions.

Brown, Charles T. "Three Studies of the Listening of Children," *Speech Monographs*, 32 (June 1965) 129-38.

Describes three studies investigating the relationships between listening and various variables, the third of which reports partial correlations among listening, reading, intelligence, and scholastic achievement as measured by various tests administered to a sample of fourth-, fifth-, and sixth-grade children.

Cooper, J. Louis. "The Effect of Training in Listening on Reading Achievement," *Vistas in Reading*, J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 11 (1966) 431-34.

Explores the effect of listening training on reading achievement by comparing post-instructional scores on standardized tests of listening and reading for 74 eighth graders in an experimental group (given 9 weeks of auding training) and 79 in a control group.

Crippen, David. "Written Lesson: Four Methods of Presentation," *Elementary School Journal*, 68 (January 1968) 195-98.

Compares the efficiency of four methods of presenting written material to 312 fifth-grade pupils and estimates the effect the various methods had on the performance of subjects grouped according to reading ability level.

Devine, Thomas G. "Listening," *Review of Educational Research*, 37 (April 1967) 152-58.

Cites 30 references in a review of research on listening, including research on relationships between listening and reading.

Auditory Perception

Devine, Thomas G. "Reading and Listening: New Research Findings," *Elementary English*, 65 (March 1968) 346-48.

Reexamines two widely-held assumptions about reading and listening by reviewing 12 recent research studies.

Duker, Sam. "Listening and Reading," *Elementary School Journal*, 65 (March 1964) 321-29.

Cites 23 references in a review of the literature on listening and reading; includes the correlation of reading and listening as a measure of reading potential, and a comparison of the two modes of presentation.

Duker, Sam. *Listening Bibliography*, 2nd Ed. (Metuchen, New Jersey: Scarecrow Press, 1968) 316 p.

Gives brief annotations of 1,332 references concerning listening, including a number that relate listening to reading under such topics as predating reading potential, correlations between reading and listening, and effects of instruction of either on the other ability, and includes author and subject indices.

Duker, Sam. *Listening Bibliography.* (New York: Scarecrow Press, 1964) 211 p.

Presents brief annotations of 880 references concerning listening, and including author and subjects indices, a number of which relate listening to reading under such topics as predicting reading potential, correlations between reading and listening, and effects of instruction of either on the other ability.

Durrell, Donald D. "Listening Comprehension Versus Reading Comprehension," *Journal of Reading*, 12 (March 1969) 455-60.

Describes the development and standardization of equated forms of reading and listening tests for grades 1 through 8 and discusses reading-listening raw score ratios and normative comparisons based upon a listening equivalent to reading grade.

Fawcett, Annabel E. "Training in Listening," *Elementary English*, 43 (May 1966) 473-76, 514.

Describes an experiment with 322 experimental and 316 control intermediate-grade pupils to determine gains in listening after 14 weeks of direct instruction and to determine the relationship of listening test scores to selected variables including reading.

Flowers, Arthur. *Central Auditory Abilities of Normal and Lower Group Readers.*

49 p. (CRP-S-076, State University of New York, Albany) ED 003 846, microfiche $0.65, hard copy $3.29 from EDRS.

Reports on research the goals of which were (1) to evaluate the hearing in early-elementary-school-aged children in a regular public school reading program, (2) to compare the auditory and perceptual abilities of children who can and children who cannot do the normal reading for their grade, and (3) to search for relations between reading achievement and central auditory skills.

Hanesian, Helen. *The Relationship of Auditory Abilities to First Grade Reading Achievement.* 97 p. (Ed.D., Columbia University, 1966) *Dissertation Abstracts,* 27, No. 9, 2883-A. Order No. 67-2805, microfilm $3.00, xerography $5.00 from University Microfilms.

Measures 175 children at the beginning of first grade for auditory acuity, early reading ability, selected auditory abilities, and intelligence and at the end of the first grade for auditory abilities and reading achievement to measure any relationship between auditory and reading abilities.

Haspiel, George S. and Bloomer, Richard H. "Maximum Auditory Perception (MAP) Word List," *Journal of Speech and Hearing Disorders,* 26 (May 1961) 156-63.

Presents a study of the auditory discriminability of phonetic elements and the construction of a list of 1,200 words with varying levels of discriminability for children with hearing loss, speech defects, and reading difficulty.

Hasselriis, Peter. *Effects on Reading Skill and Social Studies Achievement from Three Modes of Presentation: Simultaneous Reading-Listening, Listening, and Reading.* 119 p. (Ph.D., Syracuse University, 1968) *Dissertation Abstracts,* 29, No. 12, 4376-A. Order No. 69-8630, microfilm $3.00, xerography $5.80 from University Microfilms.

Investigates the effectiveness of simultaneous reading-listening, listening, or reading for social studies learning by 77 eighth-grade students of varying reading abilities.

Haugh, Oscar M. "The Relative Effectiveness of Reading and Listening to Radio Drama as Ways of Imparting Information and Shifting Attitudes," *Journal of Educational Research,* 45 (March 1952) 489-98.

Compares the relative effectiveness, in the case of 539 eleventh-grade English pupils, of reading and of listening to radio script for 30 minutes in each case, as measured immediately and after a period of 7 weeks by sets of test questions.

Hollingsworth, Paul M. "Can Training in Listening Improve Reading?" *The Reading Teacher,* 18 (November 1964) 121-23, 127.

Cites 16 references in a review of the literature on the effect of listening instruction on reading improvement.

Hollingsworth, Paul M. "The Effect of Two Listening Programs on Reading and Listening," *Journal of Communication,* 14 (March 1964) 19-21.

Describes how in order to ascertain the effect of two commercial listening programs upon reading achievement and listening comprehension, 291 eighth-grade students were divided into one control group (given no formal practice in listening) and two experimental groups each presented with a modification of a different commercially prepared taped listening lesson at the rate of one a week for 10 weeks and then preexperiment and post-experiment scores on different forms of the Stanford Achievement Test, Advance Reading, and post-experiment scores on the Sequential Tests of Educational Progress, Listening Test, were compared.

Hollingsworth, Paul M. "So They Listened: The Effects of Listening Program," *Journal of Communication,* 15 (March 1965) 14-16.

Compares the performance of 14 experimental and 14 control fifth-grade pupils on reading achievement, listening comprehension, and study skills tests, after the experimental group received a 10-week listening program.

Hollingsworth, Paul M. *A Study to Compare the Effect of Two Listening Programs on Reading Achievement and Listening Comprehension.* 95 p. (Ed.D., Arizona State University, 1964) *Dissertation Abstracts,* 25, No. 7, 3913. Order No. 64-12,822, microfilm $2.75, xerography $4.80 from University Microfilms.

Reports a study made of the effects of commercial listening programs published by the Educational Developmental Laboratories and Science Research Associates on the listening comprehension and reading achievement of three groups of eighth-grade pupils.

Horn, Thomas D. *A Study of the Effects of Intensive Oral-Aural English Language Instruction, Oral-Aural Spanish Language Instruction and Non-Oral–Aural Instruction on Reading Readiness in Grade One.* 115 p. (CRP-2648, University of Texas, Austin, 1966) ED 010 048, microfiche $0.65, hard copy $6.58 from EDRS.

Reports a comparison made of the effectiveness of three methods for developing reading readiness in Spanish-speaking first grade children using the methods: (1) English language instruction with audiolingual techniques, (2) Spanish language instruction with audiolingual techniques, and (3) language instruction using the same materials as methods one and two, but without audiolingual techniques.

Horowitz, Milton W. "Organizational Processes Underlying Differences Between

Listening and Reading as a Function of Complexity of Material," *Journal of Communication*, 18 (March 1968) 37-46.

Analyzes linguistic and cognitive differences in selecting, coding, and organizing materials which have been listened to or read by college students by using three passages which differed in logical as well as linguistic complexity.

Horowitz, Milton W. and Berkowitz, Alan. "Listening and Reading, Speaking and Writing–An Experimental Investigation of Differential Acquisition (Listening or Reading) and Expression (Speaking or Writing)," *Perceptual and Motor Skills*, 24 (February 1967) 207-15.

Reports a study in which 56 college students, randomly assigned to one of the four modes, were presented a passage and asked to reproduce it.

Jester, Robert E. "Comments on Hsia's Auditory, Visual, and Audio-visual Information Processing," *Journal of Communication*, 18 (December 1968) 346-49.

Measures comprehension of three forms of a reading test given to subjects at varying rates in an auditory, visual, and audio-visual presentation and establishes relationships within and between presentation conditions.

Kraner, Robert Eugene. *A Comparison of Two Methods of Listening and Reading Training in an Eighth Grade Language Arts Program.* 120p. (Ed.D., North Texas State University, 1963) *Dissertation Abstracts*, 25, No. 2, 1046. Order No. 64-5179, microfilm $2.75, xerography $5.80 from University Microfilms.

Makes a comparison of the effect of the methods of listening and reading instruction used in the Listen and Read Program and teacher constructed lessons on 157 students enrolled in six eighth-grade English classes.

LaPray, Margaret Helen and Ross, Ramon. "Auditory and Visual Perceptual Training," *Vistas in Reading*, J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 11, Part 1 (1966) 530-32.

Offers background and three suggestions for teachers wishing to do a better job in developing reading readiness.

Lewis, Robert Fulton, Jr. *Complementing Instruction in Reading Improvement of College Students with Instruction in Auding.* 128 p. (Ed.D., Auburn University, 1963) *Dissertation Abstracts*, 24, No. 8, 3204. Order No. 64-1538, microfilm $2.75, xerography $6.20 from University Microfilms.

Seeks to find if any significant listening improvement exists after auding instruction

was added to instruction in reading improvement for 167 college students ranging from freshmen to seniors who were enrolled in reading improvement courses.

Lockhard, Joan and Sidowski, Joseph B. "Learning in Fourth and Sixth Graders as a Function of Sensory Mode of Stimulus Presentation and Overt or Covert Practice," *Journal of Educational Psychology*, 52 (October 1961) 262-65.

Relates how lists of nonsense syllables were learned by 18 grade 4 and 18 grade 6 pupils to determine the influence of three modes of presentation (auditory, visual, and auditory-visual) and two modes of responding (overt and covert).

Lundsteen, Sara W. "Critical Reading and Listening," *Reading and Inquiry*, J. Allen Figurel, Ed. The International Reading Association Proceedings, 10 (1965) 306-08.

Reports coefficients of correlations between critical listening and critical reading, general reading, general listening, and mental maturity as measured by tests administered to 263 fifth- and sixth-grade pupils.

Lundsteen, Sara W. "Listening, Reading and Qualitative Levels of Thinking in Problem Solving," *California Journal of Educational Research*, 18 (November 1967) 230-37.

Intercorrelates scores on reading and listening problem-solving tasks and measures of reading and scholastic aptitude for 86 sixth-grade students.

Many, Wesley A. "Is There Really Any Difference–Reading Vs. Listening?" *The Reading Teacher*, 19 (November 1965) 110-13.

Reports on an experiment in which 352 sixth-grade pupils were given a reading test and a listening test which had identical materials, and comparison was made between the pupils' comprehension scores after each presentation to determine whether the visual mode of presentation is superior to the auditory mode.

Mowbray, G. H. "Simultaneous Vision and Audition: The Comprehension of Prose Passages with Varying Levels of Difficulty," *Journal of Experimental Psychology*, 46 (November 1953) 365-72.

Presents the results of a controlled experiment with two groups of subjects–naval enlisted men and a university population–to determine the effect of presenting two different prose passages to a subject simultaneously, one visually and one aurally, the passages having been selected to represent three levels of difficulty.

Orr, David B. "Recent Research on Reading and the Comprehension of

Time-Compressed Speech," *Proceedings of the College Reading Association,* C. A. Ketcham, Ed., 7 (1966) 79-84.

Investigates the effect on reading rate of training in comprehension of time-compressed speech on 10 post-high school males who simultaneously read and listened to nine passages and five male and two female subjects who were used as controls.

Orr, David B. and Graham, Warren R. "Development of a Listening Comprehension Test to Identify Educational Potential among Disadvantaged Junior High School Students," *American Educational Research Journal,* 5 (March 1968) 167-80.

Develops a listening comprehension test based on content suitable for eighth-grade disadvantaged boys and correlates it with a scholastic aptitude test and standardized reading and listening tests.

Reddin, Estoy. "Informal Listening Instruction and Reading Improvement," *The Reading Teacher,* 22 (May 1969) 742-45.

Reviews seven studies pertaining to listening instruction and reading improvement and comments on their findings.

Reddin Estoy. "Listening Instruction, Reading and Critical Thinking," *The Reading Teacher,* 21 (April 1968) 654-58.

Analyzes the effects of instruction in listening on the development of reading skills and critical thinking on fourth, fifth, and sixth graders: 192 in the experimental group and 189 in the control group.

Skiffington, James Stephen. *The Effect of Auding Training on the Reading Achievement of Average Eighth-Grade Pupils.* 183 p. (Ph.D., The University of Connecticut, 1965) *Dissertation Abstracts,* 26, No. 9, 5308-09. Order No. 66-892, microfilm $3.00, xerography $8.40 from University Microfilms.

Considers the effect on reading achievement of eighth graders, who had been placed into equated groups by standardized tests, made by adding auding training exercises to their reading instruction programs.

Spache, George. "The Construction and Validation of a Work-Type Auditory Comprehension Reading Test," *Educational and Psychological Measurement,* 10 (Summer 1950) 249-53.

Describes the need for and construction of a silent comprehension test and an auditory comprehension test based on comparable passages, and presents data relative to the reliabilities of the total and part scores of the tests.

Stodola, Quentin, *et al. Administering a Listening Comprehension Test Through Use of Teacher-Readers, Sound Film, and Tape Recording.* 42 p. (CRP-1266, North Dakota University, Grand Forks, 1962) ED 003 062, microfiche $0.65, hard copy $3.29 from EDRS.

Reports an experiment that was conducted in a typical school situation to determine if variations among teacher presentations of listening tests (reading abilities) have different effects on the results of these tests.

Van Valkenburg, John. *Learning Through Listening: Implications for Reading.* 164 p. (Ed.D., The University of Rochester, 1968) *Dissertation Abstracts,* 29, No. 6, 1692-A. Order No. 68 15,881, microfilm $3.00, xerography $7.60 from University Microfilms.

Explores interrelationships between listening and reading within the context of a "listening-socio-cultural" area.

Weintraub, Samuel, Ed. "What Research Says to the Reading Teacher: Listening Comprehension," by Debrah Weiss. *The Reading Teacher,* 20 (August 1967) 639-47.

Reviews 31 investigations of listening in relationship to the other language arts, especially reading.

Wilt, Miriam E. "A Study of Teacher Awareness of Listening as a Factor in Elementary Education," *Journal of Educational Research,* 43 (April 1950) 626-36.

Summarizes data secured through the use of a questionnaire and observations in classrooms concerning the amount of time devoted to reading, listening, speaking, and writing in elementary classrooms.

Winchester, Richard A. and Gibbons, Edward W. "The Effect of Auditory Masking upon Oral Reading Rate," *Journal of Speech and Hearing Disorders,* 23 (August 1958) 250-52.

Presents data from 40 normally hearing veterans to determine the influence upon oral reading rate provided by a commonly used masking (distracting) noise.

Winter, Clotilda. "Listening and Learning," *Elementary English,* 43 (October 1966) 569-72.

Calculates coefficients of correlation between scores on a listening comprehension test and scores on measures of intelligence and school achievement for a total of 280 boys and 283 girls in grades 4, 5, and 6.

Witty, Paul A. and Sizemore, Robert A. "Studies in Listening I: Relative Values of Oral and Visual Presentations," *Elementary English,* 35 (December 1958) 538-52.

Summarizes the results of 25 studies concerning the relative merits of auditory and visual presentations (listening and reading).

Witty, Paul A. and Sizemore, Robert A. "Studies in Listening II: Relative Values of Oral and Visual Presentations," *Elementary English,* 36 (January 1959) 59-70.

Summarizes the results of studies of the relative value of listening to materials presented in lecture form as compared with reading the same subject matter.

Witty, Paul A. and Sizemore, Robert A. "Studies in Listening III: The Effectiveness of Visual and Auditory Presentations with Changes in Age and Grade Levels," *Elementary English,* 36 (February 1959) 130-40.

Bases conclusions primarily on experimental evidence reported in 20 studies.

Section 2: Auditory Abilities

As opposed to more global listening skills, articles in this section tend to emphasize other aspects of auditory perception. A number of items deal with auditory discrimination abilities and their relationship with readiness skills, success in learning to read, and later reading performance. Auditory memory, auditory-visual integration, auditory blending ability, and the auditory modality as a means for learning are other topics treated.

Aaron, I. E. "Translating Research into Practice: Reading Readiness, Visual Perception, Auditory Perception," *Perception and Reading,* Helen K. Smith, Ed. Proceedings of the International Reading Association, 12, Part 4 (1968) 130-35.

Discusses the changes in teacher practices caused by research findings and the hazards of interpreting reading research results and summarizes the strengths, limitations, and implications for practice of six research studies.

Abrams, Arnold G. "The Relation of Listening and Reading Comprehension to Skill in Message Structuralization," *Journal of Communication,* 16 (June 1966) 116-25.

Correlates the ability to structuralize with listening and reading comprehension, and listening with reading comprehension, using as subjects 76 male and 24 female high school seniors in a precollege summer program.

Alshan, Leonard M. "Reading Readiness and Reading Achievements," *Reading and*

Inquiry, J. A. Figurel, Ed. International Reading Association Conference Proceedings, 10 (1965) 312-13.

Gives a factor analysis of the coefficients of intercorrelations among 28 measures of components of reading readiness and reading achievement computed from data obtained from various tests and teachers' ratings for 82 children, given in the middle and at the end of their first-grade year.

Arnold, Richard D. "Four Methods of Teaching Word Recognition to Disabled Readers," *Elementary School Journal*, 68 (February 1968) 269-74.

Compares four methods of instruction in word recognition with 12 delinquent boys, ages 11 to 16, who were disabled readers.

Artley, A. Sterl. "Research Concerning Interrelationships among the Language Arts," *Elementary English*, 27 (December 1950) 527-37.

Presents conclusions based on research concerning the interrelationships between reading, spelling, hearing comprehension, and other language areas and skills.

Barrett, Thomas C. "Performance on Selected Prereading Tasks and First Grade Reading Achievement," *Vistas in Reading*, J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 11, Part 1 (1966) 461-64.

Outlines a study showing predictive relationships between certain prereading tasks and reading achievement.

Barrett, Thomas C. "Prediciting Reading Achievement Through Readiness Tests," *Reading and Inquiry*, J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 10 (1965) 26-28.

Emphasizes the problems in finding measures or prereading skills, abilities, and understandings which can best predict future reading success.

Bateman, Barbara. "The Efficacy of an Auditory and a Visual Method of First Grade Reading Instruction with Auditory and Visual Learners," *Perception and Reading*, Helen K. Smith, Ed. International Reading Association Conference Proceedings, 12, Part 4 (1968) 105-12.

Involves four control and four experimental classrooms totaling 182 pupils in a study which explored the efficacy of an auditory approach compared with a visual approach to first-grade reading.

Beery, Judith Williams. "Matching of Auditory and Visual Stimuli by Average and

Retarded Readers," *Child Development,* 38 (September 1967) 827-33.

Compares performance on three tasks of auditory-visual integration for 15 subjects (age range 8 years 9 months to 13 years 3 months) with specific reading disability and an equal number of controls.

Benger, Kathlyn. "The Relationships of Perception, Personality, Intelligence, and Grade One Reading Achievement," *Perception and Reading,* Helen K. Smith, Ed. International Reading Association Conference Proceedings, 12, Part 4 (1968) 112-23.

Studies through linear multiple regression analysis the contribution of auditory discrimination, aural vocabulary, intelligence, teacher ratings of personality, and five aspects of visual perception in the prediction of reading scores of 30 pairs of Canadian children at the end of first grade.

Bergan, John R. *Factors Affecting Pitch Discrimination.* 41 p. (CRP-S-154, BR-5-8468, OEC-5-10-185, University of Kansas, Lawrence, 1966) ED 010 193, microfiche $0.65, hard copy $3.29 from EDRS.

Studies the effects of tonal memory of two kinds of factors: (1) the characteristics of stimuli presented to the subject in a pitch identification task, and (2) those effecting the response that the subject makes in such a task.

Bergan, John R. *A Study of the Relationships Between Perception and Reading.* 104 p. (CRP-5-0583-2-12-1, OEC-6-10-082, Arizona University, Tucson, 1967) ED 017 435, microfiche $0.65, hard copy $6.58 from EDRS.

Reports on a developmental study using second, fourth, and sixth graders as subjects of perception and its relationships to reading as measured by the California Reading Test, the Gates-McKillop Diagnostic Test, a word reversal test, and a reversed words in context test.

Birch, Herbert G. and Belmont, Lillian. "Auditory-Visual Integration in Normal and Retarded Readers," *American Journal of Orthopsychiatry,* 34 (October 1964) 852-61.

Compares the performance of 150 retarded and 50 normal readers, boys between the ages of 9.4 and 10.4 years with IQ's higher than 80, on an auditory-visual pattern test developed by the authors to test the hypothesis that impairment in auditory-visual integration would occur more commonly in retarded than in normal readers.

Birch, Herbert G. and Belmont, Lillian. "Auditory-Visual Integration, Intelligence

and Reading Ability in School Children," *Perceptual and Motor Skills,* 20 (February 1965) 295-305

Reports the significance of developmental pattern of auditory-visual equivalence among a total of 220 children in kindergarten through grade 6 and correlates the pattern scores with intellectual status and reading achievement of pupils at each grade level.

Braun, Carl. "Interest-Loading and Modality Effects on Textual Response Acquisition," *Reading Research Quarterly,* 4 (September 1969) 428-44.

Investigates the differential rate of acquisition and retention of textual responses categorized on the basis of sex-relation interest loading by presenting texts to a sample of 240 kindergarten children in two modalities: auditory and auditory-visual.

Brown, Kenneth L. "Speech and Listening in Language Arts Textbooks, Part I-Part II," *Elementary English,* 44 (May 1967) 336-41, 461-65, 467.

Analyzes content of 54 textbooks in 14 language arts series published from 1959 through 1964 to determine relative emphasis on speech and listening activities, to classify types of activities, and to identify principles stressed and learning experiences recommended in grades 3 through 6.

Budoff, Milton and Quinlan, Donald. "Auditory and Visual Learning in Primary Grade Children," *Child Development,* 35 (June 1964) 583-86.

Examines a study that tests the hypothesis that young children learn more rapidly by auditory than by visual stimulation by giving 56 pupils, ages 7 to 8 years, paired associates of familiar three- and four-letter nouns and verbs to determine the number of trials required to obtain the criterion when each modality was used.

Budoff, Milton and Quinlan, Donald. "Reading Progress as Related to Efficiency of Visual and Aural Learning in the Primary Grades," *Journal of Educational Psychology,* 55 (October 1964) 247-52.

Compares learning efficiency of 28 average and 28 retarded second-grade readers when meaningful words were presented aurally and visually in a paired-associate paradigm.

Capobianco, Rudolph J. and Miller, Donald Y. *Quantitative and Qualitative Analyses of Exogenous and Endogenous Children in Some Reading Processes.* 71 p. (CRP-019, OEC-SAE-6418, Syracuse University, New York, 1958) ED 002 747, microfiche $0.65, hard copy $3.29 from EDRS.

Investigates three aspects of the reading process: silent and oral reading achievement, pattern of reading errors, and auditory and visual perception techniques.

Catteral, Calvin Dennis. *The Effects of Pretraining in Auditory and Visual Discrimination of Texting in First Grade Boys.* 99 p. (Ph.D., University of Southern California, 1964) *Dissertation Abstracts,* 25, No. 6, 3387. Order No. 64-13,490, microfilm $2.75, xerography $5.00 from University Microfilms.

Analyzes the interaction between the auditory variables used in a study with 120 first-grade boys with IQ's of 85 to 115 and at normal first-grade age to find the effect of pretraining in auditory and visual discrimination on texting (reading aloud).

Chall, Jeanne; Roswell, Florence G.; and Blumenthal, Susan H. "Auditory Blending Ability: A Factor in Success in Beginning Reading," *The Reading Teacher,* 17 (November 1963) 113-18.

Reports an exploratory project in which a total of 40 Negro children in New York City public schools were followed from grades 1 through 4 to study the relation between auditory blending ability, reading achievement, and IQ by using tests of word analysis skills, oral and silent reading tests, and an author-constructed test of auditory blending ability.

Christine, Dorothy and Christine, Charles. "The Relationship of Auditory Discrimination to Articulatory Defects and Reading Retardation," *Elementary School Journal,* 65 (November 1964) 97-100.

Secures data on 53 randomly selected primary-grade subjects to ascertain whether auditory discrimination is linked to reading retardation and functional articulatory problems.

Clark, Ann D. and Richards, Charlotte J. "Auditory Discrimination among Economically Disadvantaged and Non Disadvantaged Preschool Children," *Exceptional Children,* 33 (December 1966) 259-62.

Compares mean errors on a test of auditory discrimination ability for 29 disadvantaged versus 29 nondisadvantaged pupils in summer preschool.

Cline, Marion, Jr. "A-V Aids for Spanish-Speaking Pupils," *Reading and Inquiry,* J. Allen Figurel, Ed. International Reading Association Proceedings, 10 (1965) 270-71.

Compares the scores on reading tests given to 151 experimental and 138 control

Spanish-English speaking children, before and after the experimental group received an audio-visual program, concentration on vocabulary and reading comprehension, during their fourth and fifth grades.

Cooper, J. C., Jr. and Gaeth, J. H. "Interactions of Modality with Age and with Meaningfulness in Verbal Learning," *Journal of Educational Psychology,* 58 (February 1967) 41-44.

Investigates interactions, using 932 subjects, among five grade levels (fourth, fifth, sixth, tenth, and twelfth), two modalities (auditory versus visual), and the learning of verbal materials at two levels of meaningfulness through use of a recalled paired-associate paradigm.

Cooper, J. Louis. "An Adaptation of the Fernald-Keller Approach to Teaching Non-Readers," *Reading and Inquiry,* J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 10 (1965) 361-63.

Suggests that through using the adaptation of the Fernald Method the child will change his mode of learning words from VAKT (Visual-Motor Approach), to VAK, to VA, to word analysis.

Dawson, David Kenneth. *An Instructional Program for Children with Perceptually Related Learning Disabilities.* 93 p. (Ph.D., The Ohio State University, 1966) *Dissertation Abstracts,* 27, No. 7, 2095-A. Order No. 66-15,079, microfilm $3.00, xerography $4.80 from University Microfilms.

Compares the effectiveness of conventional reading instruction presented in conjunction with special educational methods, materials, and equipment designed to improve basic perceptual skills to the effectiveness of conventional reading instruction alone with first- and second-grade children.

Deutsch, Cynthia P. "Auditory Discrimination and Learning: Social Factors," *Merrill-Palmer Quarterly of Behavior and Development,* 10 (July 1964) 277-96.

Presents theoretical relationships between status in auditory discrimination with emphasis on readiness for training in auditory discrimination; examines relationships of the Wepman Auditory Discrimination Test scores to verbal and nonverbal intelligence test items, as well as achievement, among poor and good readers at grade 5; and further compares the ability of the Wepman Test to differentiate good and poor readers at grades 1, 3, and 5 among Negro boys and lower socioeconomic backrounds.

Duggins, Lydia A. "Experimental Studies in Auditory Perception in Beginning

Reading," *Auditory Perception in the Beginning Reading Program.* College Bulletin, Southeastern Louisiana College, 13 (January 1956) 12-18.

Reports the results of controlled experiments begun in first-grade classes in three schools to determine the nature of the training essential in word perception and the most appropriate time for it in the child's learning experiences.

Durrell, Donald D. and Murphy, Helen A. "The Auditory Discrimination Factor in Reading Readiness and Reading Disability," *Education,* 73 (May 1953) 556-60.

Reviews the results of 11 masters and doctors theses at Boston University under the following headings: the effect of ear training on beginning reading, the evaluation of different methods of ear training, and status studies in auditory analysis of word elements.

Dykstra, Robert. "Auditory Discrimination Abilities and Beginning Reading Achievement," *Reading Research Quarterly,* 1 (Spring 1966) 5-34.

Examines the relationship between prereading measures of auditory discrimination and reading achievement at the end of first grade.

Evans, Jackie Merion. *The Development of Auditory Discrimination in Third-Grade Students by Use of Tape-Recorded Materials.* 84 p. (Ed.D., North Texas State University, 1965) *Dissertation Abstracts,* 26, No. 7, 3696. Order No. 65-15,116, microfilm $3.00, xerography $4.40 from University Microfilms.

Describes the development of an auditory program, an adaptation of Durrell's Building Word Power, and the program's effect in improving the auditory discrimination of 133 third-grade students.

Evans, James R. "Auditory and Auditory-Visual Integration Skills as They Relate to Reading," *The Reading Teacher,* 22 (April 1969) 625-29.

Cites 15 sources in discussing the relationship between auditory functions and reading.

Evvard, Evelyn. *A Comparative Study of Two Groups of Children with Reading Disability.* 99 p. (Ed.D., Arizona State University, 1964) *Dissertation Abstracts,* 25, No. 11, 6429-30. Order No. 64-12,834, microfilm $2.75, xerography $5.00 from University Microfilms.

Seeks to determine whether there were differences in visual and auditory perception and behavioral traits among children who had not learned to read after one year of school by making a comparative study between the nonlearner and some who were successful.

Auditory Perception

Ewers, Dorothea W. F. "Relations Between Auditory Abilities and Reading Abilities: A Problem in Psychometrics," *Journal of Experimental Education,* 18 (March 1950) 239-62.

Describes an exploratory study based on data from 140 high school pupils which attempted to relate reading disabilities to auditory defects.

Feldmann, Shirley and Deutsch, Cynthia P. *A Study of the Effectiveness of Training for Retarded Readers in the Auditory Perceptual Skills Underlying Reading.* 180 p. (NDEA-VIIA-1127, BR-5-0737, OEG-7-42-0920-220, New York Medical College, New York, n.d.) ED 013 749, microfiche $0.65, hard copy $6.58 from EDRS.

Reports on two studies, subjects of which were 64 third- and fourth-grade Negro and Puerto Rican children who were retarded readers when chosen, conducted to explore the relationship between the auditory skills of socially disadvantaged students and reading achievement and the effect of a developmental auditory training program on reading achievement.

Feldmann, Shirley C.; Schmidt, Dorothy E.; and Deutsch, Cynthia P. "Effect of Auditory Training on Reading Skills of Retarded Readers," *Perceptual and Motor Skills,* 26 (April 1968) 467-80.

Compares auditory and reading test results for three groups of socially disadvantaged third graders who received reading instruction or auditory training or both.

Fenwick, James Juvenal. *Aural and Visual Instruction with Slow-Learners.* 243 p. (Ph.D., Stanford University, 1967) *Dissertation Abstracts,* 28, No. 7, 2440-A. Order No. 67-17,421, micrifilm $3.15, xerography $11.05 from University Microfilms.

Investigates the hypothesized superiority of aural instruction over visual instruction for ninth-grade reading handicapped slow-learners and of the individual study carrel over the standard group study approach for ninth-grade slow-learner social studies students.

Fledderjohann, William Clarence. *A Study of Some Relationships of Visual and Auditory Perception to Reading Comprehension.* 60 p. (Ed.D., University of California, Los Angeles, 1965) *Dissertation Abstracts,* 26, No. 9, 5227-28. Order No. 66-227, micrifilm $3.00, xerography $3.00 from University Microfilms.

Concludes that transfer of skill does occur in relation to language comprehension from auditory to visual perception and from visual to auditory perception after an investigation of third-grade children.

Flower, Richard M.; and Ruzicka, William R. "The Communicative Disorders of Children with Kernicteric Athetosis: II. Problems in Language Comprehension and Use," *Journal of Speech and Hearing Disorders,* 31 (February 1966) 60-68.

Compares the performance on various tests of vocabulary, verbal reasoning, verbal learning, and reading, as well as parental impressions of speech and language development of three groups of 15 patients each, ages 8 through 18, who were mentally retarded with or without neurologic deficits and hearing loss.

Flowers, Arthur. *Central Auditory Abilities of Normal and Lower Group Readers.* 49 p. (CRP-S-076, State University of New York, Albany, 1964) ED 003 846, microfiche $0.65, hard copy $3.29 from EDRS.

Tests 82 third graders in order: (1) to evaluate the hearing in early elementary school-aged children in a regular public school reading program, (2) to compare the auditory and perceptual abilities of children who can and children who cannot do the normal reading for their grade, and (3) to search for relations between reading achievement and central auditory skills.

Ford, Marguerite P. "Auditory-Visual and Tactual-Visual Integration in Relation to Reading Ability," *Perceptual and Motor Skills,* 24 (June 1967) 831-41.

Correlates an auditory-visual test, tactual-visual test, intelligence test, and reading achievement measures for 121 fourth-grade boys and relates the intersensory tasks to type of reading errors made on an oral diagnostic reading test.

Ford, Marguerite P. *An Exploratory Study of the Relationship of Auditory-Visual and Tactual-Visual Integration to Intelligence and Reading Achievement.* 23 p. (BR-6-8055, OEC-6-10-320, Columbia University, New York, Teachers College, January 1967) ED 010 595, microfiche $0.65, hard copy $3.29 from EDRS.

Studies 121 white fourth-grade boys drawn from a middle class suburban community to explore the relationships of auditory-visual and tactual-visual integration to intelligence and reading achievement, and the two intersensory integration tasks to each other and to the type of reading errors made on an oral diagnostic reading test.

Ford, Marguerite Prentice. *The Relationship of Auditory-Visual and Tactual-Visual Integration to Intelligence and Reading Achievement.* 114 p. (Ph.D., Columbia University, 1967) *Dissertation Abstracts,* 28, No. 2 493-A. Order No. 67-10,581, microfilm $3.00, xerography $5.60 from University Microfilms.

Investigates the relationship of intersensory tasks to intelligence and reading achievement and explores the relationship of the two intersensory tasks to each

other and to the type of reading errors made on an oral diagnostic reading test with 121 boys in grade 4 from a middle class suburban community.

Geiger, Alice Ann. "A Study of Learning Utilizing Visual-Visual and Visual-Auditory Stimuli," *Reading Horizons*, 4 (Winter 1964) 51-54.

Makes a comparison of the relative effectiveness of two experimental ways of learning symbols and their meanings using 27 kindergarten children and 27 college students as subjects.

Goetzinger, C. P.; Dirks, D. D.; and Baer, C. J. "Auditory Discrimination and Visual Perception in Good and Poor Readers," *Annals of Otology, Rhinology, and Laryngology*, 64 (March 1960) 121-36.

Makes a comparison of 15 good with 15 poor readers, ages 10 to 12 years, equated from Binet IQ's and sex, on three tests of auditory discrimination, the Raven Progressive Matrices, and two tests of visual discrimination.

Goldmark, Bernice. *The Relation of Visual Perception, Auditory Perception and One Aspect of Conceptualization of Word Recognition.* 153 p. (Ed.D., University of Arizona, 1964) *Dissertation Abstracts*, 25, No. 1, 186. Order No. 64-6227, microfilm $2.75, xerography $7.20 from University Microfilms.

Seeks to determine whether auditory perception has a significantly higher positive correlation with word recognition than does visual perception at the second-grade level and whether categorization, one aspect of conceptualization, has a significant positive correlation with word recognition at the same level.

Gruber, Leslie and Steer, M. D. "Auditory Perceptual Abilities of Institutionalized Mentally Retarded Children," *American Journal of Mental Deficiency*, 70 (September 1965) 287-90.

Compares performance on five selected auditory perceptual tests for 37 institutionalized mentally retarded children (ages 9 through 18) who were subdivided according to sex, etiological classification, and articulation proficiency.

Harrington, Sister Mary James and Durrell, Donald D. "Mental Maturity Versus Perception Abilities in Primary Reading," *Journal of Educational Psychology*, 46 (October 1955) 375-80.

Presents a summary and analysis of data secured from 1,500 second-grade pupils to determine the influence of each of the following factors on reading achievement: visual discrimination, auditory discrimination, phonics, and mental ability.

Harris, Albert J. "Helping the Slow Reader Who Is Educationally Deprived," *Reading and Inquiry*, J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 10 (1965) 173-75.

Reports findings of studies in which disadvantaged children are studied individually and intensively by clinical procedures and questions the effort made by the school to improve the reading of these pupils.

Harris, Robert. *A Comparison of Central Auditory Integration in Children With and Without Reading Disability.* 107 p. (Ph.D., University of Pennsylvania, 1962) *Dissertation Abstracts*, 23, No. 4, 1274. Order No. 62-4301, microfilm $2.75, xerography $5.40 from University Microfilms.

Examines the construction of a valid and reliable test of auditory integration sensitive enough to detect the possible existence of subclinical organic brain malfunction in children with reading disability to aid in differentiating children with a basic organic etiology from those with a more nonorganic causality.

Hartman, Frank R. "Recognition Learning under Multiple Channel Presentation and Testing Conditions," *Audio Visual Communication Review*, 9 (January-February 1961) 24-43.

Describes three experiments that report effectiveness of televised information in various combinations of audio, pictorial, and print channels using 1,184 college freshmen to determine the conditions under which single, two, and three channels were most effective.

Hawk, Richard Louis. *The Relative Effectiveness of Auditory and Printed Programs for Students of Varying Reading Abilities.* 145 p. (Ed.D., Washington State University, 1965) *Dissertation Abstracts*, 26, No. 9, 5290-91, Order No. 66-789, microfilm $3.00, xerography $6.80 from University Microfilms.

Describes the development of a three-part auditory program based on principles of programed learning and auditory communication in the classroom and analyzes the gains made by students using the program.

Hill, Suzanne D. and Hecker, Elynordel E. "Auditory and Visual Learning of a Paired-Associate Task by Second Grade Children," *Perceptual and Motor Skills*, 23 (December 1966) 814.

Explores efficiency of paired-associate learning in visual versus auditory presentation conditions for 32 second graders who were presented, in each modality, 32 word pairs selected from preprimers.

Holmes, Jack A. "Speed, Comprehension, and Power in Reading," *Challenge and Experiment in Reading,* J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 7 (1962) 143-49.

Outlines the Substrata Factor Theory and reports some research findings on this theory of power in reading.

Horn, Thomas D. *A Study of the Effects of Intensive Oral-Aural English Language Instruction, Oral-Aural Spanish Language Instruction and Non-Oral-Aural Instruction on Reading Readiness in Grade One.* 115 p. (CRP-2648, University of Texas, Austin, 1966) ED 010 048, microfiche $0.65, hard copy $6.58 from EDRS.

Compares the effectiveness of three methods for developing reading readiness in Spanish-speaking first-grade children using the Metropolitan Readiness Test for pretest and post-test criteria scores.

Horn, Thomas D. "Three Methods of Developing Reading Readiness is Spanish-Speaking Children in First Grade," *The Reading Teacher,* 20 (October 1966) 38-42.

Compares preinstructional and post-instructional scores on reading readiness and other measures by assigning 27 classrooms to one of three instructional treatment groups: nine to oral-aural English, nine to oral-aural Spanish, and nine to no oral-aural treatment.

Hurd, Donald E. *A Study of the Relationship Between Reading Achievement and Sense Modality Shifting.* 25 p. (BR-6-8688, OEC-3-7-068688-0112, 1967) ED 015 119, microfiche $0.65, hard copy $3.29 from EDRS.

Reports on a study conducted to determine the relationship between visual and auditory singular modal responses and modal shifting behavior to reading achievement with control for such variables as intellignece, age, sex, and socioeconomic status among 120 second, fourth, and sixth graders.

Jester, Robert E. and Travers, Robert M. W. "Comprehension of Connected Meaningful Discourse as a Function of Rate and Mode of Presentation," *Journal of Educational Research,* 59 (March 1966) 297-302.

Compares the comprehension of 15 groups totaling 220 college students to eight passages administered to each group at either one of five speeds through either the visual, the auditory, or the audiovisual modality of presentation.

Kahn, Dale. *The Development of Auditory-Visual Integration and Reading*

Achievement. 80 p. (Ph.D., Columbia University, 1965) *Dissertation Abstracts,* 26, No. 5, 2589. Order No. 65-12,349, microfilm $3.00, xerography $4.20 from University Microfilms.

Investigates the relationship between audiovisual integration and reading achievement with 350 boys in second through sixth grade.

Kahn, Dale and Birch, Herbert G. "Development of Auditory-Visual Integration and Reading Achievement," *Perceptual and Motor Skills,* 27 (October 1968) 459-68.

Studies the interrelationships among auditory-visual integrative competence, IQ, and type of reading task for 350 boys in grades 2 through 6.

Katz, Phyllis A. "Verbal Discrimination Performance of Disadvantaged Children: Stimulus and Subject Variables," *Child Development,* 38 (March 1967) 233-42.

Compares discrimination performance on visual and auditory tasks presented in both Hebrew and English for a total of 72 Negro males of differing reading achievement levels in grades 2, 4, and 6.

Katz, Phyllis A. and Deutsch, Martin. "Modality of Stimulus Presentation in Serial Learning for Retarded and Normal Readers," *Perceptual and Motor Skills,* 19 (October 1964) 627-33.

Reports a study in which a sample of 48 Negro boys in first, third, and fifth grades was used to explore auditory and visual learning efficiency and its relationship to both age and reading proficiency.

Katz, Phyllis A. and Deutsch, Martin. "Relation of Auditory-Visual Shifting to Reading Achievement," *Perceptual and Motor Skills,* 17 (October 1963) 327-32.

Reports on testing of the ability to shift from visual stimuli (red and green lights) to auditory stimuli (high and low tones) among Negro males at grades 1, 3, and 5.

Katz, Phyllis A. and Deutsch, Martin. *Visual and Auditory Efficiency and Its Relationship to Reading in Children.* 80 p. (CRP-1099, New York Medical College, 1963) ED 003 042, microfiche $0.65, hard copy $3.29 from EDRS.

Studies auditory and visual skills of poor and normal readers in grades 1, 3, and 5 under various experimental conditions in order to explore the relationships between auditory and visual functioning and reading achievement and to investigate the influence of development factors on these variables.

Auditory Perception

Kerfoot, James Fletcher. *The Relationship of Selected Auditory and Visual Reading Readiness Measures to First Grade Reading Achievement and Second Grade Reading and Spelling Achievement.* 305 p. (Ph.D., University of Minnesota, 1964) *Dissertation Abstracts,* 25, No. 3, 1747-48. Order No. 64-9492, microfilm $4.95, xerography $13.75 from University Microfilms.

Uses 11 auditory and visual readiness measures and delineates subsequent findings in tests of 462 first- and second-grade children to determine relationships between the measures and reading achievement.

King, David J. and Dodge, Ann-Michelle. "The Influence of Oral Recall on Immediate and Delayed Memory for Meaningful Material Practiced under Delayed Auditory Feedback," *Journal of Psychology,* 59 (January 1965) 141-47.

Reports a study in which three groups of 14 college subjects each read aloud a 221-word story composed of five paragraphs, one group reading the middle paragraph under conditions of delayed auditory feedback and the other two groups serving as control groups.

King, Ethel M. and Muehl, Siegmar. "Different Sensory Cues as Aids in Beginning Reading," *The Reading Teacher,* 19 (December 1965) 163-68.

Compares the relative effectiveness of using five different sensory cues or combination of cues in training 10 groups totaling 210 kindergarten children to read a common list of either four similar or four dissimilar words.

Kremenak, Shirley White. *An Investigation of the Relationships among Reading Achievement, Reading Readiness and the Ability to Match Within and Between the Visual and Auditory Sensory Modalities.* 148 p. (Ph.D., The University of Iowa, 1965) *Dissertation Abstracts,* 26, No. 10, 5870. Order No. 66-3453, microfilm $3.00, xerography $7.00 from University Microfilms.

Makes a study of 108 first-grade children who were tested on their ability to make four auditory-visual associations to determine any relationships between these associations and the children's reading achievement.

Loper, Doris Jean. *Auditory Discrimination, Intelligence, Achievement, and Background of Experience and Information in a Culturally Disadvantaged First-Grade Population.* 120 p. (Ed.D., Temple University, 1965) *Dissertation Abstracts,* 26, No. 10, 5873. Order No. 66-659, microfilm $3.00, xerography $5.80 from University Microfilms.

Studies a group of first graders from a socially and economically disadvantaged population to investigate the interrelationships among auditory discrimination as a

reading readiness factor, intelligence, achievement, and background of experience and information through both individual and group measures.

Love, Harold D. "Auditory Discrimination, Spelling and Reading with Bilingual and Monolingual Children," *Journal of Developmental Reading*, 6 (Spring 1963) 212-14.

Makes a comparison of 15 bilingual with 15 monolingual pupils in grades 4 and 5 in their abilities to improve auditory discrimination (with printed words) over a period of 7 weeks and then measures the effect of changes on spelling and reading.

Lyness, Sandra L. *The Relationship of Auditory Perception to Primary Grade Reading Abilities.* 165 p. (Ph.D., Wayne State University, 1967) *Dissertation Abstracts*, 28, No. 8, 3028-A. Order No. 68-2096, microfilm $3.00, xerography $7.60 from University Microfilms.

Compares primary grade reading abilities of a group of good and poor second- through fourth-grade reading students to study the relationship of auditory perception to these abilities.

Marmon, Morris. *The Effectiveness of Alphabet Recognition and Auditory Discrimination Training on Word Recognition.* 120 p. (Ed.D., University of California, Los Angeles, 1966) *Dissertation Abstracts*, 27, No. 10, 3370-A. Order No. 67-4484, microfilm $3.00, xerography $5.80 from University Microfilms.

Discusses the training of subjects from a middle class Caucasian area and a low economic Negro area in one of four training methods: the alphabet recognition training, the auditory training, a combination of the two, or no training to investigate the effectiveness of alphabet recognition and auditory discrimination training on word recognition.

McLeod, John. "Some Psycholinguistic Correlates of Reading Disability in Young Children," *Reading Research Quarterly*, 2 (Spring 1967) 5-31.

Compares disabled readers' ability to reproduce tachistoscopically presented letter sequences and to discriminate and vocally reproduce auditorially presented words in three experiments carried out with second-grade subjects.

McNeil, John D. *Auditory Discrimination Training in the Development of Word Analysis Skills.* 99 p. (BR-5-0503, OEG-7-14-1430-290, California University, Los Angeles, 1967) ED 018 344, microfiche $0.65, hard copy $3.29 from EDRS.

Uses 90 predominately Mexican-American and Negro kindergarten pupils to test the

hypothesis that children who are taught to hear and designate separate sounds in spoken words will achieve greater success in learning to analyze printed words and finds the hypothesis true.

Mills, Queenie B. "The Pre-School Disadvantaged Child," *Vistas in Reading*, J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 11, Part 1 (1966) 345-49.

Identifies the truly disadvantaged child and his specific disadvantages in relation to beginning reading, describes some of his developmental and learning deficits, and suggests guidelines for teachers.

Mills, Robert E. "An Evaluation of Techniques for Teaching Word Recognition," *Elementary School Journal*, 56 (January 1956) 221-25.

Compares the efficiency of four methods of teaching word recognition: the visual or look-and-say, the phonic or auditory, the kinaesthetic or tracing, and combinations of these three, among 39 boys and 19 girls in grades 2 through 4, representing three intelligence levels.

Morency, Anne. "Auditory Modality, Research and Practice," *Perception and Reading*, Helen K. Smith, Ed. International Reading Association Proceedings, 12, Part 4 (1968) 17-21.

Presents findings from a longitudinal study of 179 pupils which investigated the development of auditory discrimination and visual memory and their relationship to one another and to reading achievement.

Mueller, Donald J., *et al.* "Time Relationship and Transmission Modality in a Learning Task Involving Word-Object Pairs." *Perceptual and Motor Skills*, 23 (October 1966) 615-22.

Compares for 72 undergraduates efficiency of learning 12 word-object paired associates under each of three temporal presentation conditions and under visual versus auditory presentation.

Neville, Mary H. "Effect of Reading Method on the Development of Auditory Memory Span," *The Reading Teacher*, 22 (October 1968) 30-35.

Compares the effects of silent, oral, and echoic response methods on the development of auditory memory span for sentences with 104 first-grade children from lower-middle/upper-lower class areas.

Oakland, Thomas David. *Social Class and Performance on Phonemic and*

Nonphonemic Auditory Discrimination Tests. 109 p. (Ph.D., Indiana University, 1967) *Dissertation Abstracts,* 28, No. 11, 4490-A. Order No. 68-7222, microfilm $3.00, xerography $5.40 from University Microfilms.

Selects first graders from three socioeconomic groups to study relationships between social class membership and performance on phonemic and nonphonemic auditory discrimination tests and relationships between auditory discrimination, articulation, and reading achievement.

Otto, Wayne. "Ability of Poor Readers to Discriminate Paired Associates under Differing Conditions of Confirmation," *Journal of Educational Research,* 56 (April 1963) 428-31.

Makes an evaluation of the difficulty of 30 poor readers from grades 4 through 7, 10 being assigned to each of three modes of reinforcement (visual, auditory, and kinaesthetic), in learning a list of paired assoicates (geometric forms and nonsense syllables) and explores the reasons for any ease or difficulty of association.

Otto, Wayne. "The Acquisition and Retention of Paired Associates by Good, Average, and Poor Readers," *Journal of Educational Psychology,* 52 (October 1961) 241-48.

Makes an evaluation of the effects of three levels of reading achievement (good, average and poor) with three levels of grade placement (2, 4, and 6) and three modes of reinforcement (visual, auditory, and kinaesthetic) on learning a list of paired associates, consisting of geometric forms and nonsense syllables, as well as on retention and relearning after 24 hours.

Petty, Walter T. and Burns, Paul C. "A Summary of Investigations Relating to the English Language Arts in Elementary Education–1964," *Elementary English,* 42 (April 1965) 411-30.

Presents the fourth annual summary which includes 67 studies, 47 in reading and 10 research summaries, 7 of which deal with reading.

Pimsleur, Paul and Bonkowski, Robert J. "Transfer of Verbal Material Across Sense Modalities," *Journal of Educational Psychology,* 52 (April 1961) 104-07.

Reports a study in which 10 paired associates (dissyllables and colors) were randomly presented, first through one modality then another, to 28 college students, half of whom had received A or B and the other half C or D grades in Spanish I, to determine the most effective order for learning.

Pimsleur, Paul, *et al.* "Further Study of the Transfer of Verbal Materials Across Sense Modalities," *Journal of Educational Psychology,* 55 (April 1964) 96-102.

Presents a study in which 32 college students were asked to learn two lists of 20 nonsense-real pairs of words, one list of which was pronounced as spelled while the other list was not; half of the subjects were given an auditory-visual order of presentation, while half were presented the lists in a visual-auditory order; and the better order of presentation for faster and slower learners was studied on two successive days and two weeks later.

Postman, Leo and Rosenzweig, Mark R. "Perceptual Recognition of Words," *Journal of Speech and Hearing Disorders,* 22 (June 1957) 245-53.

Reviews the results of studies which aim to identify the conditions that determine the perceptual recognition of verbal stimuli.

Poulos, W. T. "Developing Audio-Lingual Skills as a Basis for Teaching Bilinguals to Read," *Vistas in Reading,* J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 11, Part 1 (1966) 369-72.

Emphasizes the complexity of the whole oral language process, especially for nonEnglish-speaking children in English-speaking schools.

Ransom, Grayce Annable. *Aural-Visual Independent Activities in First-Grade Reading Programs.* 173 p. (Ph.D., University of Southern California, 1967) *Dissertation Abstracts,* 28, No. 7, 2454-A. Order No. 67-17, 694, microfilm $3.00, xerography $8.00 from University Microfilms.

Studies the effects of the use of investigator-prepared, aural-visual and visual supplementary first-grade materials.

Reynolds, Maynard Clinton. "A Study of the Relationships Between Auditory Characteristics and Specific Silent Reading Abilities," *Journal of Educational Research,* 46 (February 1953) 439-49.

Presents the results of a statistical analysis of the scores made by 188 fourth-grade pupils on 14 measures of reading and auditory characteristics and specific silent reading abilities, as measured by the Gates Basic Reading Tests, Types A and D.

Richardson, J. "A Factorial Analysis of Reading Ability in 10-Year-Old Primary School Children," *British Journal of Educational Psychology,* 20 (November 1950) 200-01.

Summarizes briefly the results of a factorial analysis based on the responses of 260 children to a battery of 21 tests (reading, language, visual, and auditory discrimination) and assessments of experimental background and of attitude to reading.

Robinson, H. Alan. "Reliability of Measures Related To Reading Success of Average, Disadvantaged, and Advantaged Kindergarten Children," *The Reading Teacher,* 20 (December 1966) 203-09.

Investigates reliability of eight instruments designed to identify visual, auditory, or visuo-motor abilities, or to assess reading readiness or general intelligence.

Robinson, Helen M. "Factors Which Affect Success in Reading," *Elementary School Journal,* 55 (January 1955) 263-69.

Summarizes the results of studies relating to factors effecting success in reading which were classified under two headings: characteristics of the learner and factors outside the learner.

Rudnick, Mark; Sterritt, Graham M.; and Flax, Morton. "Auditory and Visual Rhythm Perception and Reading Ability," *Child Development,* 38 (June 1967) 581-87.

Correlates three perceptual tests (auditory, visual, and visual-auditory) with measures of intelligence and reading achievement for 36 third-grade boys of middle class background.

Russell, David H. and Groff, Patrick. "Personal Factors Influencing Perception in Reading," *Education,* 75 (May 1955) 600-03.

Reviews the results of a series of studies which support the view that the child's perception in reading is affected by many factors other than the visual, auditory, or kinaesthetic methods in which he is trained by the teacher.

Schlanger, Bernard B. and Galanowsky, Gloria I. "Auditory Discrimination Tasks Performed by Mentally Retarded and Normal Children," *Journal of Speech and Hearing Research,* 9 (September 1966) 434-40.

Determines differences between the two groups in measured listening ability by giving a battery of auditory discrimination tests to 85 institutionalized educable mentally retarded children and 86 normal school children of approximately the same mental ages.

Schubert, Delwyn G. "A Comparative Study of the Hearing and Reading Vocabularies of Retarded College Readers," *Journal of Educational Research,* 46 (March 1953) 555-58.

Compares the reading vocabulary, as measured by the Iowa Silent Reading Test, and the hearing vocabulary, as measured by the vocabulary section of Form B.B of

the California Reading Test, of 26 retarded readers in the reading clinic of Los Angeles State College.

Silvaroli, Nicholas J. "Factors in Predicting Children's Success in First Grade Reading," *Reading and Inquiry,* J. Allen Figurel, Ed. International Reading Association Proceedings, 10 (1965) 296-98.

Reports coefficients of multiple correlation computed between the scores on six measures of readiness factors obtained for 87 children in kindergarten and in grade 1 and their scores on a reading achievement test administered near the end of their first-grade year.

Silvaroli, Nicholas Joseph. *Intellectual and Emotional Factors as Predictors of Children's Success in First Grade Reading.* 121 p. (Ed.D., Syracuse University, 1963) *Dissertation Abstracts,* 24, No. 12, 5098. Order No. 64-5673, microfilm $2.75, xerography $6.00 from University Microfilms.

Seeks to determine, by administering auditory and visual discrimination measures to 600 kindergarten chidren, whether any combination of the factors of mental age, auditory discrimination, visual discrimination, letter identification, social class status, and material n-achievement could be used prior to formal reading instruction to predict probable reading success.

Silvaroli, Nicholas J. and Wheelock, Warren H. "An Investigation of Auditory Discrimination Training for Beginning Readers," *The Reading Teacher,* 20 (December 1966) 247-51.

Relates preinstructional and post-instructional scores on measures of auditory discrimination and reading readiness for 120 disadvantaged kindergartners randomly assigned to a control or one of two experimental groups.

Silver, Archie A. and Hagin, Rosa A. "Maturation of Perceptual Functions in Children with Specific Reading Disability," *The Reading Teacher,* 19 (January 1966) 253-59.

Presents findings from 1949-1951 measures of perceptual functioning, intelligence, reading, and spelling achievement and compares them with those from measures administered in 1962 for 18 adult subjects, 10 of whom were classified as cases of developmental reading disability and eight as cases of organic reading disability.

Singer, Harry. "Substrata-Factor Theory of Reading: Grade and Sex Differences in Reading at the Elementary School Level," *Improvement of Reading Through*

Classroom Practice, J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 9 (1964) 313-20.

Secures data on a total of 927 pupils in grades three through six who were tested to compare mean standard scores by grade level for two dependent variables and 42 independent variables; also shows sex comparisons within grades on variables in which mean scores were significantly different between performances of boys and girls.

Skinner, Georgieann Tuech. *Single Versus Multiple Modality in Visual and Auditory Discrimination Training.* 125 p. (Ed.D., Arizona State University, 1968) *Dissertation Abstracts*, 29, No. 4, 1172-73-A. Order No. 68-15,016, microfilm $3.00, xerography $6.00 from University Microfilms.

Studies the effects of single and multiple modality visual discimination training upon the visual discrimination ability of first-grade pupils.

Spache, George D., *et al. A Study of a Longitudinal First Grade Reading Readiness Program.* 356 p. (CRP-2742, OEC-4-10-263, Florida State Department of Education, Tallahassee, 1965) ED 003 355, microfiche $0.65, hard copy $13.16 from EDRS.

Analyzes a longitudinal reading program for identification of growth in abilities and the relationship between tests using 60 first-grade students from control and experimental classes and testing them at 25-month intervals.

Spencer, Gary Dale. *The Relationship of Reading to Auditory Discrimination of Differences in Rhythm, Pitch, and Tonal Sequence.* 97 p. (Ed.D., Arizona State University, 1964) *Dissertation Abstracts*, 26, No. 2, 912. Order No. 64-12,827, microfilm $3.00, xerography $5.00 from University Microfilms.

Seeks to determine: (1) if schools selected for socioeconomic extremes had significantly different correlations with the auditory test at the third, fifth, and eighth grade levels, (2) if there were differences in correlations between grade levels within School I and School II, and (3) the relationship between reading achievement and auditory discrimination.

Sterritt, Graham M. and Rudnick, Mark. "Auditory and Visual Rhythm Perception in Relation to Reading Ability in Fourth Grade Boys," *Perceptual and Motor Skills*, 22 (June 1966) 859-64.

Studies relationships among mean scores of 36 boys on measures of intelligence, reading comprehension, and test of visual, auditory, and visual-auditory perception.

Stull, Lorren LaMar. *Auditory Assistance of Reading as a Factor in Intermediate*

Grade Pupils' Interpretations of Verbal Arithmetic Problems. 159 p. (Ed.D., The Pennsylvania State University, 1964) *Dissertation Abstracts,* 25, No. 12, Part I, 7113. Order No. 65-4424, microfilm $2.75, xerography $7.40 from University Microfilms.

Investigates the effect of auditory assistance on the ability of 838 fourth-, fifth-, and sixth-grade children to take an arithmetic verbal-problems test.

Thompson, Bertha Boya. "A Longitudinal Study of Auditory Discrimination," *Journal of Educational Research,* 56 (March 1963) 376-78.

Reports the results of a 2-year study of 105 children through grades 1 and 2 to determine the relation of auditory discrimination and intelligence test scores to success in primary reading and investigates whether auditory discrimination improves during the first two grades and whether unusual patterns of subtest scores on the Wechsler Intelligence Scale for Children were characteristic of poor readers.

Thompson, Bertha Boya. *The Relation of Auditory Discrimination and Intelligence Test Scores to Success in Primary Reading.* 147 p. (Ed.D., Indiana University, 1961) *Dissertation Abstracts,* 22, No. 3,785-86. Order No. 61-3228, microfilm $2.75, xerography $7.00 from University Microfilms.

Administers intelligence, reading, and auditory discrimination tests to 105 first-grade entrants to determine if a correlation exists between auditory discrimination, intelligence, and reading measures.

Thurston, Eric Llewellyn. *An Investigation to Determine the Existence of an Order of Difficulty in the Association of the Initial Consonant Sounds with the Printed Lower-Case Letter Symbol in the Initial Position of Nonsense Syllables.* 237 p. (Ed.D., University of Houston, 1962) *Dissertation Abstracts,* 22, No. 12, 4298. Order No. 62-2815, microfilm $3.10, xerography $10.80 from University Microfilms.

Tests 60 first-grade children with a phonics test to determine if an order of difficulty exists for initial consonant sounds.

Treisman, Anne M. "Reading Rate, Word Information and Auditory Monitoring of Speech," *Nature,* 25 (March 27, 1965) 1297-1300.

Reports and interprets the effect of delayed auditory feedback on reading rate with 63 university-educated subjects assigned to one of five experimental conditions for reading six 100-word passages with varying information-per-word ratios.

Triggs, Frances Oralind. "The Development of Measured Word Recognition Skills,

Grade Four Through the College Freshman Year," *Educational and Psychological Measurement,* 12 (Autumn 1952) 345-49.

Compares scores made by testees in grades 4, 5, 6, 10, and 12, and the freshman year in college, on tests of ability to "hear and match" letter sounds; also compares the scores of college students in different college departments to hear and match sounds and to divide words into syllables.

Van Mondfrans, Adrian P. and Travers, Robert M. W. "Paired-Associate Learning Within and Across Sense Modalities and Involving Simultaneous and Sequential Presentations," *American Educational Research Journal,* 2 (March 1965) 89-99.

Compares auditory, visual, and audio-visual presentations of forms and/or names of forms, associated with three-letter verbs under two conditions of simultaneous presentation and one of sequential, to determine the relative effectiveness of the modes of presentation and the three conditions using as subjects 270 college students.

Vernon, M.D. *Backwardness in Reading: A Study of Its Nature and Origin.* (Cambridge: The University Press, 1958) 228 p.

Summarizes experimental and clinical studies of those who for some reason or other are unable to master the simple mechanics of reading, using the following headings: visual perception, auditory perception, innate factors, acquired defects, and environmental factors.

Wagner, Rosemary E. "Reading Skills or Language Skills?" *Improvement of Reading Through Classroom Practice,* J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 9 (1964) 114-15.

Considers briefly the interrlationship between reading comprehension skills and listening-speaking comprehension skills.

Walters, Richard H. and Kosowski, Irene. "Symbolic Learning and Reading Retardation," *Journal of Consulting Psychology,* 27 (February 1963) 75-82.

Makes a comparison of 24 advanced, 24 average, and 24 retarded readers in grades 6 through 8 on their ability to learn through visual and auditory stimuli and at different reading levels, and assesses effects of transfer from one sense modality to another.

Wechkin, Stanley. "Word Learning in an Automated Teaching Situation as a Function of Display Condition," *Journal of Educational Psychology,* 53 (August 1962) 165-69.

Reports an experiment conducted to ascertain the more efficient mode of presenting materials for word learning in a multiple choice automated teaching situation by measuring speed of learning and retention for 32 girls, ages 14 through 17, who responded to an auditory stimulus which was coupled with a visual presentation of the correct equivalent and its foils and who also responded to a visual stimulus coupled with auditory response alternatives.

Weiner, Paul S. "Auditory Discrimination and Articulation," *Journal of Speech and Hearing Disorders,* 32 (February 1967) 19-28.

Reviews critically 37 investigations of the relationship between auditory discrimination and articulatory defects, including reference to the relationships between poor discrimination and poor reading.

Wepman, Joseph M. "Auditory Discrimination, Speech, and Reading," *Elementary School Journal,* 60 (March 1960) 325-33.

Relates scores on the newly standardized Wepman Auditory Discrimination Test with speech, reading, and intelligence tests for 80 first graders and 76 second graders.

Wheeler, Lester R. and Wheeler, Viola D. "A Study of the Relationship of Auditory Discrimination to Silent Reading Abilities," *Journal of Educational Research,* 48 (October 1954) 103-13.

Reviews previous related studies and summarizes and interprets the results of tests given to 629 pupils in grades 4 to 6 inclusive, to determine the relation of ability to judge pitch of musical tones and ability to discriminate sounds in auditory language situations to "sight vocabulary" and "silent reading comprehension."

Wilhelm, Rowena. "Diagnostic Value of Test Score Differentials Found Between Measures of Visual and Auditory Memory in Severely Disabled Readers," *Academic Therapy Quarterly,* 2 (Fall 1966) 42-44, 58.

Compares scores in visual memory (Knox Cube Test) and auditory memory (Digit Span Test of WISC) for 75 severely retarded readers and relates the differential to muscular tension, age, sex, and other variables.

Wilson, Dustin Whittier, Jr. *The Influence of Kinesthetic Ability on Learning to Read.* 153 p. (Ph.D., University of Minnesota, 1961) *Dissertation Abstracts,* 22, No. 8, 2642-43. Order No. 61-5870, microfilm $2.75, xerography $7.20 from University Microfilms.

Uses the Kinesthetic Work Learning Test to determine what effect kinesthetic ability has upon success in reading.

Wilson, Marguerite Ivins. *Auditory Discrimination in Bright, Average, and Dull Children.* 154 p. (Ed.D., George Peabody College for Teachers, 1965) *Dissertation*

Abstracts, 26, No. 11, 6571. Order No. 66-4420, microfilm $3.00, xerography $7.20 from University Microfilms.

Tests 120 children, 6.0 to 9.11 years old and on three levels of intellectual functioning, to investigate the auditory discrimination ability of bright, average, and dull children in four chronological age groups.

Wirthlin, Lenore. "Practical Activities for Classroom Teachers–Grades 4 Through 6," *Vistas in Reading,* J. Allen Figurel, Ed. International Reading Association Conference Proceedings, 11, Part 1 (1966) 340-41.

Suggests special teaching methods and materials to foster success in the mastery of the skills of listening, speaking, reading, and writing.

Part II
Deafness

All aspects of auditory acuity as it is related to academic performance in reading have been catalogued under this heading. In particular, reading problems encountered in deaf children or in children with hearing losses are to be found in this section. The effect of a hearing deficiency on achievement in reading and the differences in performance on various reading and reading-related tasks between normal hearing children and children with auditory deficits are the particular emphases of many of the items.

Blea, William. *A Photographic Study of the Eye Movements of Profoundly Deaf Children During the Process of Reading.* 107 p. (Ed.D., University of Kansas, 1967) *Dissertation Abstracts,* 28, No. 11, 4473-A. Order No. 68-6948, microfilm $3.00, xerography $5.40 from University Microfilms.

Investigates the relationship between eye movements in deaf readers and reading skills using as subjects 40 hearing and 70 deaf fourth and fifth graders, half from a public residential school and half from a private residential school.

Candland, Douglas K. and Conklyn, Daniel H. "Use of the Oddity Problem in Teaching Mentally Retarded Deaf-Mutes to Read: A Pilot Project," *Training School Bulletin,* 59 (August 1962) 38-41.

Presents a pilot study of a new technique for teaching mentally-retarded deaf-mutes to read by involving a modification of the "oddity problem," which consists of presenting the subject with several stimuli all but one of which are identical.

Cohen, Sandra R. "Predictability of Deaf and Hearing Story Paraphrases," *Journal of Verbal Learning and Verbal Behavior,* 6 (December 1967) 916-21.

Analyzes the comparative redundancy of story paraphrases written by 46 profoundly deaf and 46 hearing children matched for reading ability and compares their ability to restore deleted words to these stories.

Doehring, Donald G. and Rosenstein, Joseph. "Visual Word Recognition by Deaf and Hearing Children," *Journal of Speech and Hearing,* 3 (December 1960) 320-26.

Makes a study of visual recognition of letters, trigrams, and words by 40

orally-trained deaf children and 40 hearing children ages 9 to 16 to specify effects of retarded oral language ability on visual recognition of verbal material.

Gary, Lee Allan. *A Comparative Analysis of the Sub-Test Scores of Two Groups of Deaf Children for the Chicago Non-Verbal Examination and the Reading and Arithmetic Reasoning Sections of the Stanford Achievement Test.* 157 p. (Ed.D., University of Denver, 1964) *Dissertation Abstracts,* 25, No. 12, Part I, 7023-24. Order No. 65-5398, microfilm $2.75, xerography $7.40 from University Microfilms.

Investigates the differences in certain facets of intellectual ability, reading vocabulary, reading comprehension, and arithmetic reasoning ability among 7- to 12-year-old students with severe sensory-neural hearing losses from a state-supported residential school and a public day school.

Guilfoyle, George Rupert. *An Investigation of the Process of Speech Reading in Deaf Adolescents,* 107 p. (Ph.D., New York University, 1968) *Dissertation Abstracts,* 29, No. 2, 405-A. Order No. 68-11,792, microfilm $3.00, xerography $5.40 from University Microfilms.

Measures such cognitive processes as short-term memory, synthesizing, and language competence, along with speech reading skill of 62 deaf adolescents.

Hammermeister, Frieda Katherine. *The Stability of Reading Achievement in Deaf Adults.* 66 p. (Ph.D., University of Pittsburgh, 1967) *Dissertation Abstracts,* 28, No. 11, 4375-A. Order No. 68-7511, microfilm $3.00, xerography $4.80 from University Microfilms.

Evaluates present reading achievement of 60 deaf adults 7 to 13 years after graduation from a school for the deaf by using the same form and edition of the Stanford Reading Achievement Tests as were used in the deaf school in order to examine the stability of the adults' reading achievement.

Harris, F. Edward. *Language Concepts and Personality Measurement in the Deaf Using the S-O Rorschach Test.* 178 p. (Ed.D., Colorado State College, 1967) *Dissertation Abstracts,* 28, No. 8 2984-A. Order No. 68-427, microfilm $3.00, xerography $8.20 from University Microfilms.

Uses the Structured-Objective Rorschach Test (SORT) on 93 eleventh- and

twelfth-grade students who were congenitally or profoundly deaf prior to age 2 to study the hypotheses: (1) that there was a linear relationship between the scores made on a test and the scores made on a test of the language concepts involved in that test, and (2) that the variability of scores on the test was a function of the increased availability of language concepts for choice.

Hartung, Joseph Edward. *Visual Perceptual Skills, Reading Ability and the Young Deaf Child.* 82 p. (Ph.D., Washington University, 1968) *Dissertation Abstracts,* 29, No. 12, 4184-A. Order No. 69-8998, microfilm $3.00, xerography $4.40 from University Microfilms.

Investigates the reading deficiency of deaf children to ascertain whether either knowledge of code or normal visual perception skills could be the underlying cause of the deficiency.

Jackson, William Dayton. *Effects of Lighting Condition and Mode of Presentation of the Speechreading Accuracy of Deaf Children.* 91 p. (Ed.D., Indiana University, 1967) *Dissertation Abstracts,* 28, No. 10, 3891-A. Order No. 68-4732, microfilm $3.00, xerography $4.80 from University Microfilms.

Administers four versions of a speechreading task to 20 deaf children using four different lighting treatments and two modes of presentation to study the effects of the lighting and modes of presentation on the speechreading accuracy of deaf children.

Levin, Harry, *et al. Reports of Research in Progress–Project Literacy Reports, No. 7.* 95 p. (CRP-X-020-7, BR-5-0537-7, OEC-6-10-028, Cornell University, Ithaca, N. Y., September 1966) ED 010 313, microfiche $0.65, hard copy $3.29 from EDRS.

Provides complete texts of several research papers presented for "Project Literacy" and which deal with basic research and/or curriculum development in areas of education relevant to the acquisition of reading skills.

MacGinitie, Walter H. "Ability of Deaf Children To Use Different Word Classes," *Journal of Speech and Hearing Research,* 7 (June 1964) 141-50.

Made comparisons between the performances of 30 deaf girls with normal hearing with similar reading ability on a completion test based on 90 sentences sampled

from second grade readers to determine the ability of deaf children to use different word classes of the lexical and function variety.

O'Connor, Clarence D. and Connor, Leo E. "A Study of the Integration of Deaf Children in Regular Classrooms," *Exceptional Children,* 27 (May 1961) 483-86.

Makes a study of 52 deaf children placed in public or private schools to determine their age-grade correspondence and achievement.

Olson, Jack R. "A Factor Analytic Study of the Relation Between the Speed of Visual Perception and the Language Abilities of Deaf Adolescents," *Journal of Speech and Hearing,* 10 (June 1967) 354-60.

Correlates five visual perceptual tests and three language measures for 20 male and 19 female deaf subjects, ages 12 to 16 years, and factor-analyzes the resulting data.

Peters, Robert W. "The Effect of Changes in Side-Tone Delay and Level upon Rate of Oral Reading of Normal Speakers," *Journal of Speech and Hearing Disorders,* 19 (December 1954) 483-90.

Reports the results of an experiment with 18 college males with normal hearing in which a mechanical device was employed to control the speed of transmission of voice tone to the subject's ears while the subject was reading orally 36 five-syllable phrases and a short prose passage under 12 different experimental conditions.

Poling, Dorothy L. "Auditory Deficiencies of Poor Readers," *Clinical Studies in Reading,* II, 107-11. Supplementary Educational Monographs, No. 77. (Chicago: University of Chicago Press, 1953.)

Analyzes the results of tests of auditory acuity, discrimination, and memory span of 78 remedial cases in reading (58 boys and 20 girls) to determine whether deficiencies in these areas are related to specific errors in word discrimination.

Silverman, Toby Roslyn. "Categorization Behavior and Achievement in Deaf and Hearing Children,"*Exceptional Children,* 34 (December 1967) 241-50.

Studies modes of categorization at different age and reading achievement levels by administering a categorization test and a reading test to 313 hearing children, 225 typically deaf children, and 27 special class deaf children.

Townsend, Agatha. "What Research Says to the Reading Teacher, A Bibliography on Sensory Handicaps," *The Reading Teacher,* 19 (May 1966) 677-81.

Presents an annotated bibliography of 18 reports dealing with reading research related to pupils with visual, auditory, and speech impairment.

49

ERIC/CRIER+IRS Reading Research Profiles Bibliography Series

Leo Fay, *Organization and Administration of School Reading Programs*, International Reading Association, Newark, Delaware, 1971, 64 p. Members' price $1.00, nonmembers $1.50 from IRA. ED 046 677, microfiche $0.65 from EDRS.

James L. Laffey. *Methods of Reading Instruction*, International Reading Association, Newark, Delaware, 1971, 87 p. Members' price $1.00, nonmembers' $1.50 from IRA. ED 047 930, microfiche $0.65 from EDRS.

Roger Farr. *Measurement of Reading Achievement*, International Reading Association, Newark, Delaware, 1971, 75 p. Members' price $1.00, nonmembers' $1.50 from IRA. ED 049 906, microfiche $0.65 from EDRS.

Leo Fay. *Reading Research: Methodology, Summaries, and Application*, International Reading Association, Newark, Delaware, 1971, 75 p. Members' price $1.00, nonmembers' $1.50 from IRA. ED 049 023, microfiche $0.65 from EDRS.

Samuel Weintraub. *Auditory Perception and Deafness*, International Reading Association, Newark, Delaware, 1971, 64 p. Members' price $1.00, nonmembers' $1.50 from IRA.

Copies of ERIC/CRIER+IRA publications can be ordered from:

International Reading Association
Six Tyre Avenue
Newark Delaware 19711

Appendix

I. Instructions for ordering microfiche and hard copy document reproductions from the ERIC Document Reproduction Service

Documents are available from:

ERIC Document Reproduction Service
Leasco Information Products Company (LIPCO)
Post Office Drawer O
Bethesda, Maryland 20014

This information must be furnished to order documents:

1. The accession number (ED number) of the desired document
2. The type of reproduction desired—microfiche or hard copy
3. The number of copies being ordered
4. The method of payment—cash with order, deposit account, charge
   a. The book rate or library rate postage is in costs quoted
   b. The difference between book rate or library rate and first class or foreign postage (outside continental United States) rate will be billed at cost
   c. Payment must accompany orders totaling less than $10.00
5. Standing orders for microfiche cost .089 cents per fiche, special collection cost is .14 cents per fiche, back collection cost is .089 per fiche

EDRS will provide information on charges and deposit accounts upon request. All questions should be directed to J. Peter Maucher, Manager of Institutional Sales, or E. Brien Lewis, Manager of Client Sales at LIPCO.

II. Instructions for ordering microfilm and xerography document reproductions from University Microfilms

Documents are available from:

University Microfilms
A Xerox Company
300 North Zeeb Road
Ann Arbor, Michigan 48106

This information must be furnished to order documents:

1. The publication number
2. The author's name
3. The type of reproduction desired—microfilm or xerography
4. The number of copies wanted

There is a standard charge of $4.00 for microfilm and $10.00 for xerography for any order, plus shipping and handling charges and any applicable taxes. However, payment should not be sent with orders; the purchaser will be billed at the time of shipment.

Further information can be obtained by writing University Microfilms.